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Original Communications.

AN OPERATION TO RELIEVE OBSTRUCTION OF THE BOWELS BY A BAND. DEATH.

By DAVID W. CHEEVER, M.D.

SURGICAL interference to relieve intestinal stoppage, though often discussed, is rare. The history of the following case, though unfavorable in its result, contains some facts which may be of use in similar cases. To add to the experience of so unusual an operation, I conceive to be the duty of all.

J. Y., a little boy, seven years of age, was suddenly attacked, according to the parent's account. The symptoms were pain in the abdomen and obstinate constipation; followed by vomiting, tympanites and tenderness. A physician treated him at first for the constipation, with castor oil, large enemata, and other cathartics. The medicines were vomited; and nothing came from the rectum but the enemata.

On the fourth day of the sickness, he was seen by Dr. J. G. Blake. The symptoms were the same. Dr. Blake gave no cathartics, but a warm enema of two quarts, and hot fomentations to the abdomen. The following day he asked me to see him, with a view to using puncture to relieve the tympanites. The child was sitting up straining at stool, but nothing came from the rectum but a little clear serum. The belly was enormously distended; and a huge coil of intestine, supposed to be the colon, revealed itself in outline across the abdomen. There was general tenderness, but not very great. Not much retching. No tumor or hard spot was felt in the abdomen. The child's general condition was not so feeble as might have been expected.

Dec. 30, 1871.—He was taken to the hospital, and repeated punctures made into the distended intestine, with the aspirator. A good deal of foul gas came away. The abdomen relaxed; the child appeared relieved, and was able to retain nourishment. He was fed upon small quantities of milk and lime water, a little sherry, and opium. Hop-fomentations to abdomen.

Dec. 31.—He rested better last night, and retained his food. But to-day the abdomen has filled up again, and the distress from

the distention has returned. The punctures were repeated with as good result as before. Treatment was continued the same.

Jan. 1, 1872.—A little worse; no relief to the bowels. Is kept a little under the influence of opium; retains his food. The question of an operation was mooted, but I was reluctant to undertake it.

Jan. 2.—The case had now reached the *eighth* day, since the attack. The child was obviously failing. Distention and distress great. No passages downwards of fluids, or flatus. It was clear that the obstruction was not to be relieved by ordinary measures. There was, however, as yet, none of the collapse which indicates mortification; nor were the symptoms of abdominal tenderness very acute. An unfavorable prognosis was given, and the parents were very urgent for an operation. Seconded as they were by medical advice, I consented to try this last expedient, without, however, holding out much hope to them.

Operation.—The child was etherized; and the abdomen opened by a vertical incision. The intestines were so distended that they concealed the cavity of the abdomen, and prevented any search for the stricture, through this incision. A cross incision was therefore made, and the abdomen explored with the hand. There was present a moderate degree of peritonitis. No effusion in the abdomen, either serous or fæcal. The puncture marks in the intestine were seen, closed up, without extravasation, or external redness. The obstruction was found in the ileum, just above the cœcum. The ileum was much distended above the point, but empty and collapsed below, and so was the large intestine. There was no invagination, or intussusception. The ileum was twisted and held by a band of adhesion which looked old. This was easily severed, and the bowel untwisted. Air immediately passed through, and there followed, at once, an enormous liquid and gaseous discharge *per anum.*

The abdomen was now closed as rapidly as possible, warmth applied and stimulants given. The abdomen was closed in the more readily, since the bowels sank down after the discharge.

The child did not rally, but died, in a state of collapse, after three hours.

The instructive points in this case are:—

1st. That when we open a tympanitic abdomen, we had better puncture the intestines with the aspirator, or we shall be obliged to make a crucial incision. There might, however, be more difficulty in promptly finding the obstruction, if we had not the distended bowel to guide us to the stricture.

2d. Punctures with the aspirator do not cause extravasation, or inflammation; neither do they afford permanent relief in tympanites.

3d. Immediate resumption of the peristaltic movement of the bowels, as soon as the stricture was relieved.

4th. The operation was done too late. Would it not be a hope-

less proceeding at any rate? Has it ever succeeded? *Mr. Hutchinson*, of London, has recently opened the abdomen of a child, where the symptoms of intussusception were very marked, on the *tenth* day. He drew out the invaginated bowel, and the child recovered.

"For intussusception and strictures of the small intestine," says *Mr. Bryant*, in his "Practice of Surgery," "there is little to be said in favor of operative interference. The *cause* of the obstruction, in such cases, is within the intestines themselves, and not outside. But for *internal strangulations*, in which the bowel is obstructed by some solitary band, omental, mesenteric, or otherwise, the same cannot be said; for, granting that a diagnosis can be made, and its almost certainly fatal termination be accepted, the question of operation becomes a simple one—for the cause is without the bowel and remediable. Ought the operation to be attempted? or is the patient to be left to die unrelieved? I have no hesitation in giving it as my opinion, that an operation is justifiable, under these circumstances; but only when the diagnosis is fairly clear."

Dr. Brinton, in 600 cases of intestinal obstruction, found that 43 per cent. were from intussusception; 31 per cent. from bands; 17 from stricture, and 8 from torsion. In most of these, surgical relief could have been given.

The same authority estimates that obstructions of the intestines cause about 1 in 280 deaths from all diseases. In obstructions due to bands, the small intestine is the seat of the trouble in 94 per cent. of the cases. But in obstruction, due to organic strictures or tumors, the large intestine is the seat in 87 per cent. of the cases. In intussusceptions, the ileac, or ileo-cæcal give 84 per cent. of all. This is an affection more peculiarly of infancy and childhood. It is well known, also, that invaginations are very frequently found after death in young subjects, without having given rise to fatal symptoms. They are probably temporary, and become disentangled. Of 300 children examined by *Louis*, the greater number had two or three *volvuli*, without inflammation, and there was no history of symptoms during life. *Rokitansky* considers them produced in the death-struggle, or the *rigor mortis*.

The question of differential diagnosis between bands and invagination is important in reference to the trial of operative interference. The difference is often clearly marked, but not always. *Dr. Fagge** gives the following symptoms of *band*:—"The sudden and definite onset of the illness; the occurrence of collapse at its beginning; an early age; the severity of the pain, generally referred to the umbilicus; the absence of precursory symptoms; the absence of tumor, hæmorrhage, or dysenteric symptoms, such as are seen in intussusception; and the absence of the intensity and rapidity of the acute form of volvulus."

Mr. Gay† has collected 148 cases of strangulation by band. In

* Guy's Hospital Reports, 1868.
† Transactions of the Medical Society of London. 1861-2.

band, vomiting is constant; in intussusception, it often ceases. In band, constipation is the rule; in invagination, diarrhœa, bloody and mucous stools. In band, abdominal distention is an early symptom; in intussusception, it may never exist. In the latter, a distinct tumor may be felt. In both, opium should be freely given.

In intussusception, the proper treatment appears to be *inflation*, which has sometimes succeeded; and an operation may be a final resort.

In band, we can have no resource but an operation. It is an internal strangulation like a hernia, hopeless unless the stricture can be removed.

Abdominal surgery has been so far advanced in comparative safety by the experience of ovariotomists, that *Dr. Otis*, in the exhaustive History of the Surgery of our late War, ventures to predict, that in gun-shot wounds of the abdomen, with pressing symptoms, the practice of abdominal section, search for the ball and prevention of extravasation may eventually become common, and more successful than the fatal inactivity now the rule. In like manner may we not look forward to an increasing percentage of recoveries in operations to relieve intestinal obstructions—a ratio of success comparative to our early and accurate diagnosis?

In a case of such hopeless nature, it is painful to any physician of sensibility to stand by and do nothing, when an examination, *post-mortem*, reveals the cause of death to be purely *mechanical*, and capable of relief from a touch of the finger, could it have been rightly applied.

Treatment of Congenital Atelectasis Pulmonum by Steam.—The author considers the greatest danger for the life of the new-born infant to be the lowering of the temperature of the body, caused by incomplete decarbonization of the blood and by bronchial catarrh. This danger, according to the author, can be removed by the application of external warmth by making the temperature of the air inspired sufficiently high. The air, however, must be moist, which can be most easily effected by placing the child in a steam bath, a tent being made with blankets, and steam developed underneath it by means of a vessel containing boiling water which must be often renewed; or, by means of a boiling apparatus so arranged as to keep the temperature 26–27° C.; at the same time, care must be taken that there be always sufficient circulation of air therein. The temperature of the bath should, for the first days, not be allowed to go below 25° C., and at no time go above 30°. As to length of time to keep the child in the bath, this depends upon the severity of the case; sometimes as many as 8–14 days are required. The temperature is to be gradually diminished, and the child to become accustomed to the temperature of the room which should at no time be a very low one. The author claims to have seen very good results from this treatment.—*Allgem. Med. Central Zeitung.*

Progress in Medicine.

REPORT ON PATHOLOGY AND PATHOLOGICAL ANATOMY.

By R. H. Fitz, M.D.

[Concluded from p. 383.]

The term *desquamative pneumonia* may represent three degrees. The lowest degree appears in severe general diseases as a *consecutive desquamative pneumonia*, under those conditions where parenchymatous alterations of the heart, liver, kidneys, &c., occur, and might, in like manner, be called parenchymatous pneumonia.

It is generally double, diffuse, lobar, affects the bronchi secondarily, and may be found in the anterior and upper parts of the lungs as well as in the posterior and lower portions. If tolerably general and distinct, the lungs are enlarged, filled with blood, with isolated, punctate sub-pleural and parenchymatous extravasations. They are œdematous, and do not collapse, barely even on section. Serum, containing minute air-bubbles, flows from the cut surface, and delicate elevations are presented, the projecting walls of the empty alveoli. The tissue is flaccid and friable. With the microscope, one finds abundant alveolar epithelium, swollen, rounded, finely granular, the granules in part protein, in part fat, the latter rapidly predominating. From the condition of the epithelium, arises the term, such being entirely analogous to the changes occurring in the consecutive parenchymatous nephritis. Pus corpuscles are rarely found; they then arise from the co-incident catarrhal bronchiolitis. Pleurisy is absent, and there are no fibrinous plugs. A speedy or protracted convalescence may occur; likewise death.

In protracted convalescence, a chronic fatty degeneration of the epithelium occurs. Acute atrophy of the lungs may also take place, when "the pleura is not adherent, and there is a complete absence of air in the pulmonary tissue, an unusual laxity, with extensive moisture, a smooth surface on section, a brownish-red color mixed with gray, a more or less dense consistency, cylindrical dilatation and approximation of the acartilaginous bronchi, with livid redness of their mucous membrane."

A special form of parenchymatous pneumonia is that where the exudation follows the course of the interlobular and sub-pleural lymph vessels, distinguished from desquamative pneumonia in that its course is accompanied by pus formation. This process is most frequently seen in pyæmic, new-born infants, infected by the mother suffering from puerperal fever. It also occurs in adults dying with pyæmia not dependent upon embolism.

Another degree is primary, *genuine desquamative pneumonia*. Its relation to the consecutive form is analogous to true Bright's disease, as compared with the renal affections occurring in some general disease. It is generally seen at an advanced period (four to six weeks or later), and is usually more fully developed in the upper parts, advancing downwards. In cases of six or eight weeks' duration, the volume and weight of the diseased lungs or lobes are considerably increased, the surface smooth, dull, covered with cuticular fibrine or united by organ-

ized adhesions. The pleura is swollen, presenting here and there ecchymoses, especially over the lower lobes. The lungs do not collapse, even on section; the elasticity is diminished or absent. The friability is increased, even to diffused softening. The cut surface shows the lobar diffuse expansion of the alteration, a more or less diminished, in parts even complete absence of air, and a feeble granulation. The last condition is due to the thickened inter-alveolar parenchyma. Considerable blood is present. The longer the process has persisted, the greater the abundance of granular pigment, whereby the tissue is slaty-gray or black. On scraping the surface, a slight amount of gelatinous fluid is obtained, bloody and opaque from the presence of numerous cell elements. Under the microscope, one finds exfoliated epithelium from the alveoli and bronchi, fatty degenerated, often containing brown or black pigment. Neither pus, mucus, nor coagula are present. The expectoration, even in the first week, is characteristic; that, too, where the symptoms might suggest croupous pneumonia. One finds abundant alveolar epithelium, with occasional ciliated epithelium. The longer the duration of the disease, the greater the abundance of the epithelium, granular and pigmented corpuscles. Free fat granules and free nuclei are also present. Later, the alveolar epithelium undergoes a myeline degeneration. The enlarged, rounded cells become granular corpuscles, the granules being dull, their outlines indistinct, the cells appearing as pale, clear bodies. The pulmonary epithelium shows nuclear proliferation, with newly formed cells of various size and shape. In croupous pneumonia, such a degeneration occurs towards recovery. Stellate and spindle cells are also obtained from the cut surface. The pigment is often extremely abundant. The alveolar framework is thickened by the new formation of tissue.

Though this disease is generally fatal, it is not always so. Complete recovery may take place. A protracted course may be accompanied by chronic fatty degeneration of the epithelium, in one case extending over a year when death occurred, the clinical symptoms of pulmonary phthisis being present.

A second result of genuine desquamative pneumonia is cirrhosis of the lungs. In this case, the development of the pulmonary connective tissue predominates by far over the superficial epithelial alterations. The term is applied when the connective tissue appears "as fibrous cicatrices or tumors, in which the alveolar parenchyma and the minutest bronchi are enclosed, obliterated and destroyed." At times, muscular cells predominate to such a degree as to demand the term muscular cirrhosis. This connective tissue may be pigmented, or gray and translucent; in the latter instance, generally combined with the preceding form. These cirrhotic nodules may become ossified.

Cheesy pneumonia is a result of the genuine desquamative pneumonia, and is the highest degree of the same, terminating in necrosis, and is acute, subacute or chronic. The cause of the frequency of cheesy pneumonia is found in a proliferation of peri-arterial tissue, in addition to the development of embryonal tissue in the purer forms of genuine desquamative pneumonia. In the subacute and chronic forms, one finds evidence of retrograde or final processes, either a return to the normal condition in the desquamative portions or cirrhosis, chronic fatty degeneration and the formation of cavities. As peri-bronchitis is seated in the adventitia of the acartilaginous finer and finest bronchi,

it deserves the term peri-bronchiolitis. There is a simple form, without the production of pus, and a purulent form accompanied by such.

Though the tubercle belongs to the lymph system, and is analogous to a lymphoid organ, it represents a peculiar sort of lymphoid formation, in that the protoplasm of its giant cells becomes firm, the substance cementing the nuclei becomes carnified, its connective tissue periphery becomes fibroid. Regarding the connective tissue cells as the forerunners of fibrillary connective tissue, and of undeveloped endothelium, a special irritament stimulates them to produce the giant cells, and hence the remaining constituents of the tubercular lymphoma. Thus the tubercle may develope from the connective tissue cells (Langhans) and the endothelium (Rindfleisch, Klebs). The tubercle may become entirely absorbed. Small tuberculous cavities may follow the cheesy degeneration of tubercles; calcification may also occur. The seat of the tubercle is always wherever connective tissue lymph vessels and small arteries, with lymphatic sheaths, are present, and therefore exists in the inner fibrous layer of the mucous membrane of the larger bronchi, in the wall of the bronchioles and in the interlobular connective tissue of the lungs, even in the walls of the alveoli. The acute miliary tubercle of the lungs is, clinically, essentially a local disease, a desquamative pneumonia, distinguished from the pure form only by the fact that giant cells appear beneath the proliferating epithelium of the alveolar walls; therewith the tubercle, from the beginning, attains the interior of the alveolus, and, later, through local infection, miliary tubercles may become developed in the swollen frame-work, provided with formative connective tissue elements. Miliary tuberculosis is always acute, advances not only from the apex downwards, but from the alveolar parenchyma towards the bronchioles. This peculiarity belongs to desquamative pneumonia also, and is equally true of the parenchymatous affection, whether tubercles are developed in it or not. Almost always an acute, punctate, cheesy, lobular pneumonia developes in the nearest alveoli; hence the larger yellow miliary tubercles of the lungs are tuberculous lymphomata, with central degeneration, surrounded by degenerating and degenerated desquamated epithelium of the neighboring alveoli. This condition is a subacute miliary tuberculosis. The chronic form is the result of the acute, when retrograde changes in the entire pulmonary parenchyma occur, in addition to the punctate caseation.

Hence, a peribronchitis nodosa is a chronic miliary tuberculosis. In fact, there is no other tuberculosis of the lungs than the acute miliary form, which may extend by numerous acute secondary growths. A secondary capillary bronchitis may occur, but not always. It may be so slight that cough is absent. If this be present, microscopic examination of the sputum will present characteristic evidence.

The theory that miliary tuberculosis is a specific disease, is based upon the fact that a cheesy deposit is almost always present in the body. This cheesy deposit originates from earlier completed inflammatory conditions. It must not be completely encapsuled, surrounded by firm fibroid tissue.

The presence of tubercles in the immediate vicinity of the nodule (infectious through vicinity), as well as the simultaneous appearance of the miliary tubercles in the various organs.

The seat of the miliary tubercles in the connective tissue containing lymph vessels.

The analogy of the histological structure with that of the normal lymphoid organs, even in the physiological condition (not functional) which calls them into life.

Tuberculosis, as an infectious disease, is not single (miliary carcinosis).

The immediate inoculability from one human being to another (not inheritance).

Tuberculosis, as a rule, does not occur in company with other infectious diseases.

Finally, the results of the inoculation of animals.

Acute miliary tuberculosis is co-existent with desquamative pneumonia, not necessarily cause or result of the inflammation. It is, locally considered, an inflammation, with the development of tubercles, and the tubercular lymphomata may be found in cheesy cellular infiltration.

Only those inflammations should be called tubercular which bear, not accidentally, but inherently and necessarily, the condition of producing tubercular lymphomata, simultaneously with the appearance of the inflammation, which, however, remains limited to the corresponding inflamed portions of tissue. Hence, of the various inflammations of the lungs, the cheesy pneumonia alone deserves the name of tubercular inflammation.

Tubercular pneumonia is primary, acute; miliary tuberculosis is secondary, infectious. The former is a constitutional disease, hereditary, and a tuberculous inflammation may occur in almost all the tissues and organs of the body. The person with a tuberculous constitution is one whose organic activity has a tendency to respond to slight irritation by an inflammatory exudation unusually rich in cells. The irritament is constitutional, not infectious, as in miliary tuberculosis, and the tubercular pneumonia is merely an enhancement of the genuine desquamative pneumonia. This exudation must have a tendency to caseation.

Under pulmonary phthisis, is comprehended the advancing destruction of the respiratory organs, and, more particularly, the decay and emaciation of the body, caused by such an encroaching lung disease. The causes are, first and foremost, parenchymatous or desquamative pneumonia, allied to which are the peri-bronchitic inflammations.

Regarding acute miliary tuberculosis as a form of phthisis, it would be an infectious phthisis. Tuberculous pneumonia would be an inflammatory phthisis. Infectious and inflammatory phthisis are both embraced under the term pulmonary consumption, for the desquamative pneumonia is common to both. Both are distinguished from each other in that the infectious phthisis never creates destruction, while the inflammatory form seldom advances without ulceration. Pulmonary consumption is either primarily inflammatory or secondarily infectious. Only the primary, inflammatory form is constitutional; the latter runs an acute or chronic course.

The individual constitution is merely one factor in the development of phthisis; it is phthisis latent. External causes must also be present; the effect must be parenchymatous irritation and inflammation of the respiratory organs.

Catarrhal and croupous pneumonia and chronic bronchial catarrh do not lead to phthisis. Catarrhal affections of the pulmonary organs

become more frequent as one leaves the tropics for the higher latitudes; at the same time, the northernmost parts of the earth possess a certain immunity from phthisis. On the contrary, the tropics show the greatest frequency and the greatest rapidity in its course. So with regard to elevation. High table lands and mountains are the homes of catarrh and bronchitis, while a height of 2000 feet above the sea level forms the limit for the occurrence of phthisis. As regards the atmospheric influence, the temperature of the air and moisture play the most important parts. Sudden, extreme and frequent changes of temperature prevent compensation on the part of the body. Hence, the temperature of the air and its rapid changes must be regarded as the occasional causes of inflammatory phthisis, and in most regions where phthisis is prevalent there is a high degree of moisture.

Friedländer's investigations are experimental, a pneumonia being produced by section of the vagi (Traube), as a result of which the buccal fluids enters the lungs. An acute inflammation of the lungs follows, with a regular typical course. Examination with the microscope, six hours after the experiment, shows a grumous or thread-like mass filling the alveoli, containing more or less white blood corpuscles; in addition, granular corpuscles, at times containing pigment. These cells differ from those arising from the bronchial wall, and are regarded as arising from the normal epithelium of the alveolar wall, these having become more granular, thicker, and finally detached. An examination made nine hours after the experiment, shows that the fibrous wall of the alveolus remains intact; the interstitial tissue surrounding the vessels and bronchi is thickened, from the presence of numerous lymphoid cells. Upon the alveolar wall, in addition to the granulofibrillary material, the swollen epithelium and red blood corpuscles, are found numerous lymphoid cells, with double or multiple round nuclei. The accumulation of lymphoid cells in the bloodvessels of the affected part is extreme, and, later, the alveoli are almost completely filled with lymphoid cells, which are surrounded by a continuous alveolar epithelium. A hyperæmia and sero-hæmorrhagic exudation in the alveoli takes place, then the presence of numerous lymphoid cells in the bloodvessels, interstitial tissue and in the alveolar cavities; the epithelium of the latter first swells in the transuded serum, afterwards undergoes fatty degeneration without taking an active part in the inflammatory process. This form of pneumonia differs from the fibrinous, croupous form, but is analogous to the catarrhal pneumonia of children.

In an appendix, the author refers to the publication of Buhl, whose theory of the pathology of desquamative pneumonia differs so widely. He opposes the view of the latter with regard to the endothelial nature of the alveolar epithelium, and maintains that the same is not to be considered as endothelium, but as a direct continuation of the bronchial epithelium. He also opposes the idea that the lymphoid cells are present in the alveoli through aspiration from the bronchioles, but re-asserts that they occur primarily in the alveoli. He considers that the desquamative pneumonia of Buhl is rather the œdematous condition of the epithelium, in connection with which there is no active participation of the interstitial tissue.

Reports of Medical Societies.

THE BOSTON SOCIETY OF MEDICAL SCIENCES. EDWARD WIGGLESWORTH, JR., M.D., SECRETARY.

MARCH 25th, 1873.—The society met at the house of Dr. Wadsworth, Dr. Warren in the chair.

Dr. Dwight read a paper upon "The action of the intercostal muscles."

Dr. White showed, under the microscope, at the January meeting of the society, some hairs from a patch of tinea tonsurans upon the head of a young girl. The disease at that time had lasted some months. Since the last meeting, the girl's grandfather had applied to him for treatment on account of a thickened and diseased condition of the finger nails, which presented the appearances usually produced by a fungus, and showed, under the microscope, myceloid growths and spores of tinea tonsurans. In this case, the nails had been affected for years, and it is probable that the disease was by him communicated to the young girl. It has been attempted to cultivate these spores from the nails, as in the case of favus, but the original form has not been discovered. The elements vary somewhat from those in the hair or upon the skin.

Dr. Webber spoke of two cases in which he had recently examined the spinal cord and nerves, where amputation of the arms had been performed during life.

April 19, 1873.—The society met at the house of Dr. Homans, Dr. Richardson in the chair.

Dr. Wadsworth spoke of a recent discovery of Max Schultze, tending strongly to confirm theories previously advanced by him as to the special function of the cones in the rod and cone layer of the retina, and of the yellow pigment in the macula lutea. The cones alone take part in the perception of color. In man and in the day-monkeys, in the central part of the retina, only cones are present, and there is some yellowish pigment in the anterior layers. Night-birds and other night-animals have few or no cones in the retina. In day-birds, the cones are present. The theory is, that the yellow pigment acts by cutting off rays from the violet end of the spectrum; also some of the red, rendering the rays more achromatic which meet behind it. Schultze examined recently the fresh retina of a Brazilian night-ape and found, in accordance with the above theory, no yellow pigment and no cones in the retina.

Dr. Jeffries added that Schultze says also that the owl has very few cones, the retina being almost entirely composed of long delicate rods. Day-birds have cones but almost no rods, and the ruby red and yellow drops of pigment in the cones are strongly marked. They have one or two foveæ. In 1866, Schultze spoke of apes which alone have yellow spots, as in man. The intensity of the yellow spot is a cause of color blindness; a person may be violet blind from excess of yellow pigment. Dr. Jeffries had noticed in eyes removed for sympathetic ophthalmia a difference in the amount of pigment in the macula, not in relation simply with the amount of pigment in the choroid. The yellow spot is to be expected in the negro or mulatto,

but would excite attention if more strongly marked in a white person. This amount of yellow pigment would, of course, also affect all mixed colors containing violet.

Dr. Wadsworth stated that violet blindness at the central point of vision had been long observed. It was first pointed out by Herschell, that in looking at a number of small stars together, one is observed best by looking at its neighbor. Schultze says, one sees blue better by looking a little to one side, because the yellow pigment diminishes more rapidly than the acuteness of vision does, as we go away from the central point.

Dr. Jeffries remarked that, if one looks at the spectroscopic colors, one sees a violet color farther along than where one is looking, i.e., the spectrum appears longer by not looking at but by it, the yellow of the macula causing the blindness. Dr. Jeffries then spoke of a case where yellow sight occurred within an hour after the administration of two grains of santonine. Virchow and Von Graefe report no case from so small a dose. Schultze speaks of it after five grains. Here it occurred after two grains and was observed several times.

Dr. Bowditch spoke of the origin of sugar in diabetes. Where the sugar is more abundant after meals, it is due to too great formation of sugar in the liver, the organ diseased. The glycogen in the liver may be made to disappear, at least in the lower animals, by means of a meat diet. In other cases, the amount of sugar is uniform through the twenty-four hours disregarding diet, and shows functional trouble in the muscles where albuminoid food is split up and makes glycogen, and the nitrogenous makes urea. In these cases, the patient is weak; not so in the former cases. The latter kind is also more and sooner fatal than the former. Dr. Bowditch inquired if these two kinds were recognized.

Dr. Jeffries, recurring once more to yellow vision, said that at this season the green boughs would stand out as when seen in a stereoscope, if looked at through yellow glass. The glass, of a pale sherry color is the best. This may be used also in picture galleries by day, not by gas-light.

Dr. Wadsworth had been able to get the stereoscopic effect by simply looking steadily at the landscape, the trees in the foreground standing out.

Dr. Jeffries thought this rather a question of accommodation, and stated that the glass gave much better results.

Dr. Wadsworth thought any other colored glass might give similar results; the yellow glass makes the eye achromatic and defines more sharply.

Dr. James asked if the glass must be colored throughout its entire thickness. Dr. Jeffries said this was preferable.

Dr. Quincy next showed and explained examples of the Albert-type process.

May 27th, 1873.—The society met at the house of Dr. Wadsworth, Dr. Green in the chair.

Dr. Wadsworth showed, under the microscope, sections of the fovea from a normal retina. He explained, by means of drawings upon the blackboard, the minute structure of the retina, especially at the fovea. Dr. James inquired if the fibres connecting the two granular layers were nervous or connective tissue. Dr. Wadsworth said this was not certainly known.

Dr. Jeffries spoke of the breaking off of the pigment from the rods and cones going to prove that it was retinal; also, of a tumor occupying the place of the choroid, but being really a white sarcoma.

Dr. Wadsworth stated that the basement membrane of the choroid could often be followed over or upon the surface of a tumor even when this projected considerably into the eye, and when atrophy of the epithelial layer from pressure existed.

Dr. Bowditch spoke of a new test for albumen, viz., picric acid, recommended in an article in the March number of Brown-Séquard's Archives, translated from the *Gazette Méd. de Paris*, 1873, p. 122. A drop of the fluid to be tested, urine for example, is allowed to fall into picric acid; it sinks through, and, if albumen is present, leaves a white streak. Dr. Bowditch has not found this so accurate a test as heat or nitric acid; e. g.:—

20 cc. of urine + 2 gtt. egg albumen gave slight reaction with heat.

20 cc. of urine + 2 gtt. egg albumen gave distinct reaction with NO_5.

20 cc. of urine + 2 gtt. egg albumen gave no reaction with picric acid.

20 cc. of urine + 4 gtt. egg albumen gave slight reaction with picric acid.

Better results were obtained with picric acid, when a dark background was employed.

Petroleum a Remedy in Whooping Cough. By Dr. Weiss, Staff-Surgeon.—In July, 1872, two children, living in the same house with the author, were taken sick with the measles, a boy of seven and a girl of six years of age. In August, the mother took them together with her other child, 4½ years old, into the country, when this one also was taken with the same disease. The measles were of light form, and with the boy and youngest girl ran a mild course, whilst, with the girl six years old, a severe whooping cough developed itself. Towards the beginning of September, the other two children began likewise to cough; the family returned to the city and the children were separated from each other, the girl six years old being placed in a room by herself, which before this could not be done. During the ensuing eight days the author observed an increase of the cough in the boy and in the youngest girl, with the characteristic sound of tussis convulsiva. During this time, bed bugs were found in the beds of the two youngest children, and, for the purpose of their destruction, petroleum was freely used. To the great astonishment of the mother, after this the children were much quieter nights, and coughed less also in the day-time. Eight days later, the beds being taken away from the children to undergo a similar procedure, the cough returned severely; again, when the beds were returned, becoming much diminished, and finally disappearing altogether. The oldest daughter, whose bed had not been subjected to this treatment, suffered long, in spite of all treatment, and was finally cured by being sent away from home for a change of air.

The publication of this case is interesting in connection with the results of the treatment of this disease in gas-works and by turpentine inhalation.—*Berliner Klin. Wochenschrift.* No. 20. 1872.

Bibliographical Notices.

Lectures on Madness in its Medical, Legal and Social Aspects. By Edgar Sheppard, M.D., Professor of Psychology in King's College, London. Philadelphia: Lindsay & Blakiston. 1873. 8vo. Pp. 186.

These seven lectures, by a new professor in a new chair, have a freshness and directness quite Watsonian, which is the highest compliment to their style the writer can bestow. The matter, for the most part, is worthy of the style. The subject is treated rather generally, of necessity, but is so presented as to give important points due prominence, and to prove an incentive to further research on the part of the student.

The author thinks insanity rather on the increase, in spite of the negative opinions of Maudsley and Robertson. Statistics, though not wholly reliable, show an increase for England and Wales, in the past ten years, from 2 to 2½ per thousand of the population. Civilization, so called, is indirectly responsible for this increase, since the greater the rate of social progress the greater the waste and loss of power. The higher the mental standard of the race, the more marked is individual deterioration and failure. Hereditary causes rank highest. *Occurring cases* are about equal in the two sexes. More men get well or die, and more women become incurably insane. The country furnishes a larger proportion of cases than cities, because intermarriages, underfeeding, and want of intellectual activity prove, after all, more fruitful of insanity than the wear and tear of town life. This fact seems to diminish the force of the charge against civilization of inducing an increase of mental disease.

Insanity, he thinks, always presupposes disease affecting the vesicular neurine of the convolutions, leaving, in most cases, appreciable lesions, and in general paralysis, notably distinct and peculiar changes. The causal classification of Dr. Skae, notwithstanding its convenience to the certifier, he discards, and substitutes nothing for the old symptomatic divisions of Pinel, of mania, melancholia, dementia and idiocy. Although the former is equally imperfect with the latter, we must give it credit for an attempted approach to a scientific value. Such terms as phthisical, climacteric, traumatic or puerperal mania, melancholia or dementia, certainly convey much more of a case than either of the last three alone, though the mental disease may be essentially the same in all.

The prominent forms of mental disease are illustrated by typical cases vigorously presented occurring in the lecturer's experience, or selected from that of others. The writer agrees with Esquirol, that "moral alienation is the proper characteristic of mental derangement." He says "moral perversion is the substratum of every deviation from the normal standard of mental integrity." Still, in a case where no intellectual disorder is apparent, the morbid causes of the moral perversion should be carefully elicited. Insane impulse is not really the isolated phenomenon it seems, but depends on an underlying insane temperament or *diathesis spasmodica*.

The treatment of insanity is not considered at length or in detail; but the ideas advanced are practical and plainly set forth. The

hospital is the best place for the insane in general, and early treatment is of the greatest importance. With the wealthy, the home may be turned into a hospital, sometimes, to advantage, and some well selected cases of insanity, particularly of puerperal mania, may recover at home, under favorable circumstances. There is nothing said about cottage and family systems, and no allusion to "free air" or "Gheel," for which let us be duly thankful. The insane have suffered enough from the anti-hospital and the non-restraint manias. The author, after showing the mischief caused by the attempt at an absolute disuse of mechanical restraint in English hospitals, delegates the subject to the superintending physician, where it belongs as a purely medical matter. The "cold pack" in acute mania he values partly from its involving complete restraint. The Turkish bath is recommended in melancholia. High feeding, forcible if necessary, with moderate stimulation, is of the first importance. There is nothing to fear from what Sydenham calls "too great spirituousness and richness of the blood" in cases of insanity. Chloral outranks opium, in the author's opinion.

Such is the general scope and character of a very useful series of lectures. The students of King's College, however, have had the advantage of the reader in frequent clinical demonstrations concurrent with the lectures at Colney Hatch Asylum, where Dr. Sheppard is one of the medical superintendents. T. W. F.

The Cerebral Convolutions of Man. By ALEXANDER ECKER, Professor of Anatomy and Comparative Anatomy at Freiburg. Translated by ROBERT T. EDES, M.D. New York: D. Appleton & Co. 1873. Pp. 87.

THOUGH the original work appeared four years ago, it has been little known in this country, owing chiefly to the want of a translation. Dr. Edes deserves well of the profession for the excellent manner in which he has supplied this deficiency. Ecker's description is, almost without exception, clear and easy to follow, with the assistance of the drawings, in which all confusing details have wisely been suppressed. The views of the author are more like those of Bischoff than of any other observer; both recognize five lobes—the frontal, parietal, temporal, occipital and trunk lobes, though they do not agree as to the boundaries. Ecker makes the fissure of Rolando the division between the frontal and parietal lobes, giving one of the central convolutions to each, while Bischoff gives both to the parietal. Ecker denies that the external occipital fissure disappears in the eighth month of fœtal life, as Bischoff maintains, claiming that it is represented by a small sulcus into which the parietal fissure (the intraparietal of Turner) frequently opens. There is no doubt of the existence of the fissure which Ecker describes; indeed, Bischoff's plates show it perfectly, but this leads us to doubt if it be really the one which the latter observer denies.

We are not acquainted with any system of nomenclature of the convolutions which is entirely satisfactory, but it seems as if both embryology and comparative anatomy favored one founded on a plan of longitudinally arched convolutions and fissures. It is not easy to see the advantage of a temporal lobe, obtained by drawing an arbitrary

line in front of the occipital, according to Ecker, or of the parietal, according to Bischoff. The boundaries of the occipital lobe are, except on the median surface, entirely meaningless.

It is easy to criticize a work of this nature, for the field is still so new that few points are settled beyond question; but this book has the great merit of giving very clearly the outlines of a system by which the arrangement of the convolutions is made intelligible to the general medical reader. T. D., JR.

BOOKS AND PAMPHLETS RECEIVED.

Lectures on Diseases and Injuries of the Ear, delivered at St. George's Hospital, by W. B. Dalby, F.R C.S., M.B. Cantab., Aural Surgeon to the Hospital. With twenty-one Illustrations. Philadelphia: Lindsay & Blakiston. 1873. Pp. 228.

Perityphlitis. By Wm. T. Bull, M.D. Re-printed from the New York Medical Journal. Pp. 27.

On the Treatment of a severe Case of Lignitudo Capitis. By Dr. Carl Both. Pp. 4.

Clinical Reports from Private Practice. By John Herbert Claiborne, A.M., M.D., Petersburg, Va. Jos. Van Holt Nash. 1873. Pp. 424.

A Practical Treatise of the Diseases of the Ear. By D. B. St. John Roosa, M.A., M.D. Illustrated with Wood Engravings and Chromolithographs. New York: Wm. Wood & Co. 1873. Pp. 535. (For sale by A. Williams & Co., Boston.)

The Sanitarian for October. The New York Medical Journal for October. (From A. Williams & Co.)

Transfusion of Milk in Cholera.—In the *Aberdeen Medical Student* for July 4th, Dr. Edward M. Hodder, of Toronto, recounts the following experiments made by him during the last epidemic of cholera in Toronto, twelve or fourteen years ago. A stout-built farmer was admitted to the cholera hospital. He was in a state of collapse, cold, pulseless, blue, and shrivelled; the secretion of urine was arrested; there was vomiting and purging of rice water fluid — in fact, he seemed dying. A consultation was called, and it was decided that the patient was dying, and nothing could be done. Dr. Hodden resolved to try the effect of transfusing milk. "I ordered," says Dr. Hodden, "a cow to be driven up to the shed, and while she was being milked into a bowl (the temperature of which was raised to about 100° Fahr.) through gauze, I opened a vein in the arm and inserted a tube, and then filled my syringe (also previously warmed), and injected slowly therewith. No perceptible change, either for better or for worse, took place; so after waiting two or three minutes, I again filled the syringe and injected seven ounces more. The effect was magical; in a few minutes the patient expressed himself as feeling better; the vomiting and purging ceased, the pulse returned at the wrist, the surface of the body became warm — in fact, the man rallied, and speedily recovered without a bad symptom." A second case is also recorded which was treated in a similar way, with a good result.—*Lancet*, July 19, 1873.

Boston Medical and Surgical Journal.

Boston: Thursday, October 23, 1873.

The recent outbreak of typhoid fever in London, has afforded the English press a text for much interesting discussion. The origin of the epidemic is supposed to have been traced to the milk supplied by the Dairy Reform Company, on one of whose farms typhoid fever existed, and it was found that a large proportion of those who were affected by the disease received their milk from this particular farm. A number of other interesting facts all seemed to point to this conclusion, and the company was immediately notified as to the probability of this origin, in a communication signed by Sir William Jenner and Dr. Murchison. Notwithstanding this testimony from such high authority, the company hesitated for several days to stop the milk supply, and have been soundly abused by the medical journals for their scepticism. The supply of milk once cut off, the epidemic, it was thought, declined considerably. In addition to a protracted discussion, brought about by this action of the company, many ingenious theories have been advanced as to the way in which the milk became the bearer of the contagion. A loud cry was raised against the use of sewage grass, but it was soon found that the Diary Reform Company had never used it. A more plausible theory was that set forth by Dr. Michael Taylor, in a London daily paper. The warm milk, he states, absorbs with readiness effluvia from the air, and is in the highest degree susceptible to the least mustiness and putrescence in the atmosphere. It is in truth, he says, the most congenial soil or *nidus* in which contagion may nestle and fructify, and in which, like leaven, the germs of typhoid, scarlatina and cholera may be reproduced and multiplied. The way in which the poison enters the milk, according to his showing, is not appetizing, to say the least, to partakers of this beverage. In a previons similar outbreak, the cows were milked by the hands of a woman who was nursing cases of typhoid fever on the premises. The dry epidermic dust, the *débris* from the peeling of the skin, was shaken from the arms and dress of the milker into the milk-can, or was absorbed from the atmosphere charged with these floating particles.

It has been also supposed that the water with which the cans were washed came from a well tainted by a defective sewer. This was found to be the case at Wolverhampton, where an epidemic of typhoid was also raging.

Although there has been much debate as to the way in which the

milk has been contaminated, little doubt has existed amongst the profession in England that such is the fact. But now that the smoke of battle has cleared away, we understand, at last accounts, that serious doubts are arising as to whether the much abused milk is, after all, to be held responsible for the outbreak.

Moderator Band of the Heart.—Dr. George Rolleston, in the Harveian Oration recently delivered before the Royal College of Physicians, exhibited in the heart of a bird, the Australian cassowary, a structure which he is quite sure has never been described or figured before. This structure is a moderator band which has never been found in any other member of the class Aves, though it is largely developed, and, indeed, exactly reproduced in the hearts of certain mammals, and is represented, at least rudimentarily, in our own. The band passes directly across the cavity of the right ventricle from its fixed to its movable wall. A band of similar function has often been figured as existing in the hearts of most or all reptilia below crocodilina; and it serves to close up and expel the blood from the pulmonary compartment of their imperfectly divided ventricle.

Dr. Rolleston proceeds to inquire as to the morphological bearing of his discovery and as to what traces of it we can find in ourselves. He states that the valves of the heart in the higher vertebrata may be spoken of as being but trabeculæ flaked off from the inner surface of a muscular sac, and subsequently made more or less membranous.

The musculi papillares represent the disposal or destination of the innermost layer of the right ventricle, according to Dr. Pettigrew; and the lecturer considers the moderator band to be but a specialization of the next layer from within outwards.

"If we look at the outer aspect of that very constant musculus papillaris, which passes in man from the outer and movable wall of the right ventricle to distribute its chordæ tendineæ to the two more anteriorly placed of the three segments of its auricular valve, we shall frequently see that its longitudinal fibres are crossed nearly or quite at right angles by a slender fibrous band, so that we have before us an appearance not wholly nor essentially unlike that presented by the striæ longitudinales of Lancisi and the fibres of the corpus callosum when viewed in neutral connection. This band of fibres can sometimes be traced upwards towards the conus arteriosus, and be seen not to die away until close upon the point of origin of the most anteriorly or upwardly placed chorda tendinea arising from the septum to pass to the hindermost of the three segments of the tricuspid. The points between which this line of fibres lies may be observed to be the very same as those between which the moderator bands in the cassowary and the sheep stretch as free columns. It is not altogether rare to see this band raise itself from the position of fusion, like the ventricular wall, and assume the character of a cylindical band for a lesser distance, but with no less distinctness as a column than in the ungulata.

"Every gradation exists between the entire obsolescence of the moderator band, which we sometimes see in the human heart, up to the important and structurally prominent development attained to by

it in the ungulate mammal, and this solitary instance for the class of birds, and the sub-class with such generalized affirmities of Struthiones." (A full report of this lecture with illustrative plates may be found in the *British Med. Journal*, July 5, 1873.)

A CORONER'S inquest was recently held in Blackburn upon a person who died from the use of the stomach-pump. The following statement of the case is taken from the *Lancet* of Aug. 30th, p. 311.

"It appears that the deceased was accustomed to take, daily, half an ounce of tincture of rhubarb as a stimulant and tonic, for which he was in the habit of calling every evening at the shop of a druggist at Blackburn. At 7, P.M., on the evening of the 16th, he called at the shop and asked for 'his usual dose' which he drank then and there, but remarked that it did not taste as usual, and the druggist looking at the bottle from which the dose had been taken, found that he had given him laudanum by mistake. A scruple of sulphate of zinc dissolved in a tumbler of water was immediately given. A medical man who was called proceeded to use the stomach-pump. 'The tube was too large, and on the smaller one being introduced at the mouth, that was found to fail also.' Ten grains more of the sulphate of zinc were then administered, and the deceased vomited copiously. The deceased never seems (after vomiting had been induced) to have had any symptoms of narcotic poisoning. He complained very much of his throat, and the administration of nourishment became difficult. He was much emaciated, and died on the afternoon of the 19th, three days after the accident.

The post-mortem examination revealed a stricture of the œsophagus (probably malignant), which accounted for the difficulty in passing the tube. Above the stricture, the walls were very thin, and a perforating fissure was discovered which had doubtless been made by the tube of the stomach-pump.

He seems, previous to the accident, to have presented no symptoms of stricture of the œsophagus beyond some slight dyspepsia accompanied with "water-brash." The jury exonerated both the medical men from any blame, and very properly looked upon the untoward occurrence as a pure accident. Very properly also, they considered the druggist deserving of grave censure, for, from the evidence, it appeared that no precautions had been taken by him to readily distinguish between the bottle which contained the laudanum and that which held the tincture of rhubarb."

PASSAGE OF A LARGE NUMBER OF PINS, &C., PER ANUM. Reported by JAMES L. FITE, M.D., Lebanon, Tenn.—The following interesting case came under my observation, and I send it for the Journal. For a greater part of the history I am indebted to the little patient's father.

Minnie Ross, three months old, on the 25th of February, 1873, had an action from her bowels, after which the points of three pins were discovered. The mother took hold of them with her fingers and pulled them out. The pins looked bright and new.

About three o'clock the same afternoon, two more pins were extracted in the same way—one point, and the other head foremost.

On the next day, about three o'clock in the afternoon, the baby passed thirteen more pins and two needles—the needles were small cambric needles with the points broken off. The pins were all of the same kind, except one large brass pin.

About half-past 3 o'clock on the same evening, she passed a small agate button. This was on Wednesday, the 26th of February, 1873.

On the following Monday, March 3d, about 8 o'clock P.M., the baby passed nine more pins, eight of which I enclose to you. These, you will discover, are somewhat corroded.

On Thursday following she passed one pin, very much corroded.

So far as I know, the baby has never had a pain or made a grunt from the effects of these pins, &c. Minnie Ross was three months and nine days old on the day the first pins appeared.

My theory is, that these pins, needles and button were given to the baby by a little servant girl, on the morning of the day the first pins came.—*Nashville Journal of Medicine and Surgery.*

REPLANTATION OF TEETH.—During the discussion of the subject of alveolar abscess, at the late meeting of the Illinois State Dental Society, Dr. Chase, of Missouri, remarked that cases of replantation are more numerous than we should have supposed. He said :—

"We know that teeth have been knocked out and lain in the dirt for two or three days, and after replacement have grown firm, and after recent luxation the circulation has become re-established.

"In case of persistent alveolar abscess, he thought every one justified in conquering it by extraction and replantation.

"It is astonishing what a tooth will bear. The idea that the periosteum is destroyed by cutting off the apex of the root is all a mistake. It is not at all necessary to keep the tooth in tepid water or blood. Time may be taken for the operation. In some cases it may be well, previous to operation, to take an impression for making a plastic retaining cap or splint upon, to be used after the replacement of the tooth. He should treat the next case of a persistent nature that came under his care in this manner.

"When there is no external opening in alveolar abscesses, forces creasote up; it causes great pain.

"Remembered a case, of two teeth treated in the same mouth, though not at the same time. One had an external opening, the other not. In the case without opening, there was more pain than in the other, but it succeeded in a shorter time than the one that had the opening.

"In a communication in a recent number of the *London Dental Review*, the author advocates pepsine for dissolving dead portions of pulp. This struck the speaker favorably, and accordingly he had tried it for several months. It accomplished its work within a few hours, provided the pulp has not previously been treated with creasote or tannin."

Dr. Kilbourne, of Aurora, Ill., related a case of extraction of a first bicuspid, for incipient ulceration, and replantation. After cleaning root-canals with creasote, and filling with gutta-percha, and filling carious cavity with tin, the tooth was replaced and left without ligation, and has been doing well since—about two years ago.—*Amer. Jour. Dental Science.*

Correspondence.

The Training School for Nurses.

Messrs. Editors,—As the time for opening the Training School for Nurses draws near, the question of its probable usefulness is becoming a subject of more lively discussion among physicians.

The following are the chief among the arguments used by those who take ground against the scheme.

1. That the claim of its supporters, that a better and more refined class of women will be attracted into the profession of nursing, will not be justified by facts.
2. That the nurses which we now have are good enough.
3. That much learning will make the new nurses—if not mad, at least uppish and intractable.

The answer to the first objection must be left to the future. It may be that this claim has been urged too strongly, and that it is, in fact, to a better modelling of the old clay that we must look, rather than to the introduction of better clay. If, however, there are intelligent and refined women who are at present on the fence in the matter, we know of no better inducement that could be offered to them to take the right step than that which is offered by the new plan.

As to the second objection, if we are content to neglect the modern means of investigation and treatment in our practice, and to find ourselves, after years of experience, losing more and more our confidence in the efficacy of all medical treatment, as Rusticus, in his last letter, confesses to have been doing, then we can get along well enough with the nurses that we now have.

If, on the other hand, we desire to make a science of our art, to know if, and exactly how much, and after what time, and in what respect our digitalis affects the pulse, and our calomel the temperature, or the daily or hourly variations in pulse and temperature from any cause, or if we wish to know the character of the excretions through the day, or to test the doctrine of crises in our practice, or if we wish to give cold baths of a definite temperature in typhoid fever, or to have the ear syringed out so that the fluid will go where it is wanted, or leeches or cups applied, or subcutaneous injections given, we cannot do it without the aid of skilled nurses, and we can do it with them, as has been abundantly demonstrated.

With the surgeon, the case is not very different. As matters stand, he must, in private practice, spend as much time in doing what a skilled assistant could do as well, and often better.

One great reason that among the physicians in large practice in England and Germany there are more that become distinguished as scientific and literary men—Professor Traube and Sir Henry Holland, for example—than among the same class here, is that the work in these countries is better subdivided, the educated men taking the head-work and becoming better educated, and the skilled assistants taking the manual work.

The office of famulus is not an extinct one in Germany, and in the obstetrical department of the Vienna hospital a large class of female nurses receive regular instruction from a regularly instituted professor (Professor Spaeth).

There is no reason why the long list of surgical dressings, including the application of splints, &c., should not be done by trained nurses, and the hurried surgeon be given the opportunity of eating his dinner in comfort, and getting to the polls at election time.

There is no reason why regularly educated physicians should be electricians or masseurs.

The specialists for nervous diseases should know how electricity ought to be used in their department, and the surgeon in his, and the details could be perfectly well intrusted to skilled assistants.

It will be said that this would be unfair to the younger men, who would thereby lose a lucrative part of their practice.

The argument would be as fallacious as the time-old one that the invention of machines is injurious to the hand-laborer. Let the standard of learning be raised among physicians, young or old, and increased confidence on the part of the public, and increased and more lucrative work, will inevitably be theirs.

We hope, some day, to see these changes made; and, if the School for Nurses shows itself able, with the help of the hospital, which certainly will not suffer thereby, and of the physicians interested, to turn out nurses that are really skilled, we have no doubt that the experiment will succeed.

With regard to the third objection, it is, we think, unfounded. Systematic training makes people more obedient to rule rather than less, and increase of knowledge, so far as it influences the character at all, influences it for the better. QUI FACIT PER ALIUM FACIT PER SE.

MEDICAL ELECTRICITY.

MESSRS. EDITORS,—With your permission I desire to say a few words by way of reply to a communication on the subject of medical electricity of your correspondent, Rusticus, who seems equally anxious to get information himself and to impart it to others. Electricity is a science of vast depth and intricacy, and, more especially, that part of it which belongs to animal structures; in proof of which I will mention that even Carpenter, accustomed to those profound researches we admire in his Physiology, confesses himself unable to follow Du Bois-Reymond to the full extent of those investigations he has made on this subject. Difficult, indeed, would be the practice of medical electricity, and confined to the hands of very few, if one had to go to the very bottom of inquiries like these, and might not venture, for example, to send a current from his battery through a nerve until he had first considered how this artificial influence would affect certain numberless electrical circles moving spontaneously within the infinitesimal molecules of the part itself, each pair of which becomes peripolar or depolar, as the nerve is in a state of action or at rest. I question, indeed, whether even those who amuse themselves with such minute speculations, bring them into actual practice, or are not rather guided by those external symptoms, and that ordinary experience, equally within the reach of my friend Rusticus and the great multitude of other practitioners.

Haud inexpertus loquor. When, some years since, my attention was first directed to electricity as a means of curing disease, the instruments themselves, I confess, presented a difficulty at the very outset; they were new to me, and, as a matter of consequence, not understood. I then had recourse to books, which began with abstract, half metaphysical discussion, extending far into the volume before any practical matter was approached. This mass of introductory matter I do not, by any means, mean to say was useless; I would only assert that it was too much labored and remote for a beginner, and that all the essential points are comparatively simple, and such as may be mastered without any unusual share of difficulty. Since this time, many good works on the subject have been written, as those of Althaus, Reynolds, Tibbits, Hamilton, Meyer, etc., and many admirable machines constructed, as those of Remak, Fromhold, Meyer, and the Galvano-Faradic Manufacturing Co. of New York; the latter are those I now use, as being at once simple and efficacious.

While making these remarks, I am not at all to be understood as if desirous of defending those itinerant and other electricians whom Rusticus so justly decries; on the contrary, such ignorant pretenders deserve no countenance, and, as in the instance of the lady with her "primary" and "secondary" who brought on hemiplegia, should be prosecuted and punished by law. All I would advance, is, that the practice of electricity is open to every physi-

cian; that the success with which he uses it will depend mainly on his knowledge of disease, and that there is no secret in this, any more than in any other department of medical science. While I would caution the public against the quack, local, itinerant, male and female, I would also remind the physician of his own ability, and encourage him to make use of electricity himself, if for no other motive than to take it out of the hands of the uneducated. It would, indeed, be a strange thing to see the country overrun with impostors who carry a "box" filled with mischief, like that of Pandora, while a medical man is obliged to look on, or send his patient to a specialist in Boston, New York, or elsewhere.

But I fear, gentlemen, that I have taken up too much of your valuable space, and must conclude somewhat abruptly by advising Rusticus, and others who desire to secure to their patients the benefits of electricity, to procure some such instructive books and some such effective instruments as those above spoken of, when, in a short time, with a little study and a little practice, they may thrust out the empiric, vindicate their own claims, and not trouble the specialist. I have the honor to be yours,

URBANUS.

Obituary.

DIXI CROSBY, M.D., LL.D., died at his residence in Hanover, N.H., Sept. 26 ult., aged seventy-three years and seven months. For thirty years he was connected with Dartmouth College, holding the chair of surgery for more than three-fourths of this long period. Dr. C. belonged to a family of physicians; his father, several of his brothers, his sons and many of his nephews have been, or still are, members of our profession. For several months preceding his death, he suffered from some heart lesion, probably dilatation of the right side, but the immediate cause of his demise was effusion into the cavity—the brain suffering last, so that his end was as peaceful and painless as his life had been pure and exemplary. Truly an honored son of New Hampshire, and a distinguished member of the medical profession has passed away, and we cannot speak of his demise without paying a brief tribute to his memory. He was a man and physician of distinguishing and characteristic traits. A man strong in purpose, determined in action, truthful, just and kindly disposed toward all with whom he came in contact. His *positivism* made him at times seem severe and dogmatic, but it was only innate force manifesting itself in an honest and determined enunciation of his convictions. As a surgeon, he was cautious and skilful; as a physician, he was kind, patient and eminently successful. He has endeared himself to hundreds of young and middle-aged members of the profession who have listened to his teaching or seen him "sever but to save." He was no blind follower of acknowledged lights, but drew his inferences and his illustrations from the storehouse of his own large experience. As he often said of himself, he was "the disciple of no man."

A star truly has fallen from the medical firmament, but it is not lost in darkness: its reflected light will be seen and felt for generations to come. When his name shall be spoken or his history analyzed, let our young men emulate his example, and seek to attain that success which is the reward of traits like his—high aims, studious habits, moral perfection and invincible determination.

All honor to his memory, for he was worthy! A. A. M.

Concord, N. H., Oct. 13.

Medical Miscellany.

DR. W. P. BRECHIN has been appointed to the charge of the department of aural surgery at the Boston Dispensary.

THE King of Dahomey is reported to have changed the fashion of his wearing apparel. Seated on his throne, he received a scientific commission, not long ago, his body profusely decorated with the blue, gold, and green labels which had been carefully peeled from the medicine bottles brought by Europeans into his dominions.—*Canadian Medical Times.*

A PECULIAR malformation is exhibited in the case of a girl at Sweitau, in Bohemia. Both arms are wanting, but the right upper limb is represented by a small, movable outgrowth, a little more than three inches long, attached to the integument near the outer end of the right scapula. The hand possesses only the middle, ring and little fingers, connected directly (there being no carpus) with a forearm an inch and a half long. This rudimentary limb is quite useless; but the child uses her toes to feed herself with, and in sewing and other kinds of work.—*Canadian Medical Times.*

UNPLEASANT HOSPITAL VISITORS.—At Benguella, in Angola, says the *Correio de Sul*, the military hospital is in such a state that wolves have entered it in search of human flesh. The *Correio Medico de Lisboa*, commenting on this, says: "Speaking plainly, our colonies, as regards the hospitals, are, for the most part, the most perfect examples of carelessness, indifference, and contempt of humanity, that can possibly be found."—*London Med. Record.*

ON THE BRAIN.—Professor Ferrier delivered a lecture, in the Section of Biology, at the British Association for the Advancement of Science, "On the Localization of the Functions of the Brain," in which he stated the results of a series of experiments which he had conducted during the last year upon the brains of living animals by means of a small electrical machine. His first object had been to stimulate the brain, with a view of ascertaining whether, in opposition to the theory of Brown-Séquard, he could in this way produce activity of the brain. In carrying on these experiments, he had dealt with cats, dogs, rabbits, guinea pigs, fish, a jackall, and a monkey; and the results obtained had led to the discovery of an entirely new system of phrenology. Applying the electric stimulus to certain convolutions of the brain of inferior animals, he almost invariably produced certain motions—thus establishing the existence of a close connection between those portions of the brain and the action of particular muscles. Pursuing his investigations, he also established a similar connection between other portions of the brain and the senses of hearing, seeing, and speaking; and speculation enabled him to guess, with tolerable accuracy, at those parts of the brain which were the seat of thought, memory and sensation.—*Dublin Medical Press and Circular.*

SCAPULAR CREPITUS.—Under this title, Dr. Galvagni describes (*Medicin. Jahrb.*, 1873) a peculiar crepitating sound, most evident on moving the scapula by placing the hand on it at the lower angle, and sometimes audible even at some distance. In two individuals in whom this was heard, there was extensive deformity of the thorax, the result of pleurisy, so that the scapula was at a considerable distance from the chest. One of the patients died of phthisis; and a large bursa was found between the subscapularis and serratus anticus major muscles, which were both much atrophied. The bursa had worn away part of the serratus and of the subjacent ribs. In a third case, the individual was a seamstress, in whom the crepitus was heard four or five weeks after the commencement of the cramp. Dr. Galvagni believes that, in writer's or seamstress's cramp, the scapular muscle may undergo atrophy, causing the scapula to glide on the ribs, and giving rise to the crepitation.—*Centralblatt für die Med. Wissensch.*, July 19th.

SUBSTITUTION OF GOAT'S MILK FROM THE LIVING ANIMAL FOR THE SUCKING-BOTTLE.—Dr. H. MacCormac maintains that goat's milk may be abstracted from the living animal, and transferred at once to the infant's stomach, by means of a tube provided with an artificial nipple. In this way, it is thought, the mortality hitherto attendant on artificial lactation may be greatly diminished.

THE CHOLERA IN PARIS.—The following are the official figures representing the progress of cholera in Paris in the week ending Sept. 15. On Sept. 9 there were 12 deaths; Sept. 10, 25; Sept. 11, 33; Sept. 12, 17; Sept. 13, 25; Sept. 14, 22. On Sept. 15, the reports are incomplete, but appear to show a decrease. The total deaths for the six days were 134. In the civil hospitals, during the six days inclusive, there were 79 admissions and 29 deaths; a considerable mortality, but still one which, at the outset of an epidemic of cholera, does not indicate a very intense form of the disease.—*London Medical Record.*

VERNEUIL ON MUSCULAR HERNIA.—The following instance of this rare complaint is reported from the clinique of M. Verneuil *(Gazette des Hôpitaux*, No. 13, 1873). A young, healthy man, aged twenty, stated that, about twenty months before, his foot slipped, and the limb was violently abducted. He felt something give way, but no ecchymosis followed, whilst a tumor suddenly appeared on the inner side of the thigh (he felt slight pain during twenty-four hours). The tumor appeared when the patient adducted the limb, and disappeared during inaction. It was not rupture of muscle, since there would have been ecchymosis, motion would have been impossible, and a gap would have existed between the divided ends. (A cure also would have followed in such a case, but a hernia is rarely curable.) It was considered that in this case the aponeurosis had been ruptured, and the muscle allowed to escape through the opening.

In a work on hernia of muscle, published by Mourlon, in 1861, fifteen cases are recorded. Nine of these occurred in the adductor muscles of the thigh; in two, the rectus femoris was affected. These herniæ have given rise occasionally to curious mistakes. They have been confounded with varices, neuromata, cysts, lipomata, and even reducible hernial tumors. Warren removed one; and a cure has followed an exploratory operation by the secondary union of the border of the aponeurotic wound.—*London Med. Record.*

NOTES AND QUERIES.

WE are happy to acknowledge the receipt of a box of very elegant pharmaceutical preparations from Joseph T. Brown & Co.

MORTALITY IN MASSACHUSETTS.—*Deaths in fifteen Cities and Towns for the week ending October* 11, 1873.

Boston, 123—Worcester, 26—Lynn, 20—Lowell, 23—Charlestown, 16—Salem, 10—Somerville, 9—Gloucester, 8—Chelsea, 6—Newburyport, 6—Holyoke, 5—Fitchburg, 5—Springfield, 4—Haverhill, 3—Milford, 2. Total, 266.

Prevalent Diseases.—Consumption, 46—cholera infantum, 25—typhoid fever, 20—dysentery and diarrhœa 13—pneumonia, 9—scarlatina, 7.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Oct. 18th, 139. Males, 67; females, 72. Accident, 6—apoplexy, 6—inflammation of the bowels, 2—bronchitis, 4—disease of the brain, 3—cancer, 3—cerebro-spinal meningitis, 1—cholera infantum, 10—consumption, 22—convulsions, 3—croup, 1—debility, 4—dropsy, 1—dropsy of the brain, 1—drowned, 2—dysentery, 1—diphtheria, 3—erysipelas, 1—scarlet fever, 7—typhoid fever, 11—gastritis, 1—gangrene senilis, 1—hernia, 1—disease of the heart, 2—hæmatemesis, 1—intemperance, 1—disease of the kidneys, 2—disease of the liver, 3—congestion of the lungs, 4—inflammation of the lungs, 8—marasmus, 10—old age, 1—pleurisy, 1—premature birth, 5—suicide, 2—teething, 1—whooping cough, 1—unknown, 2.

Under 5 years of age, 57—between 5 and 20 years, 14—between 20 and 40 years, 34—between 40 and 60 years, 19—over 60 years, 15. Born in the United States, 89—Ireland, 36—other places, 14.